

**REMARKS**

Claims 1-6 and 8-18, 20 and 21 are currently pending in the application. By this amendment, claims 1, 8, 9 and 14 are amended and claims 7 and 19 are cancelled without prejudice or disclaimer. Claim 21 is also added for the Examiner's consideration. Support for the amendment(s) is provided in the claims as originally filed. Additionally, support for claim 21 is found at least at page 8, lines 8-12 of the specification. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

***Examiner Interview***

Applicants appreciate the courtesies extended by the Examiner to Applicants' undersigned representative during a telephonic interview conducted on September 17, 2004. During this interview, the Examiner indicated that the term "relevant" to define the image area of interest would appear to suffice to overcome the concerns of the Examiner. Applicants undersigned representative noted that the area of interest to be decompressed is relevant and that such terminology would be placed in the claim in order to overcome any objection thereto. This amendment is not a narrowing feature and is provided only in view of the discussions between Applicants' undersigned representative and the Examiner.

Additionally, Applicants' undersigned representative further discussed the distinguishing feature of the decompressing portions of a tile, which is an area of interest. As discussed in the telephonic interview and in more detail below, the Hashimoto reference teaches away from this feature.

***35 U.S.C. § 103 Rejections***

Claims 1-20 were rejected under 35 U.S.C. § 103(a) for being unpatentable over U.S. Patent No. 6,366,289 B1 issued to Johns in view of U.S. Patent No. 6,559,853 B1 issued to Hashimoto, *et al.* ("Hashimoto"). Applicants respectfully traverse this rejection.

The claimed invention is directed towards selectively decompressing a compressed graphic image data in a selected coverage section. In the embodiments of the invention, the selected coverage section is overhead data which may include a coverage section, for example, the geographical extent of the data using latitude and longitude vertices and decompressing data based on these vertices. As noted at page 8 of the specification, decompression of data for an area of interest can typically be performed more quickly than decompression of an entire tile, and much more quickly than loading a file containing the data from a disk. The decompressed portion is relevant data which is the data of interest.

By way of example, claim 1, recites, in part,

means for selectively decompressing a portion of said compressed graphic image data as stored in the memory based on a selected coverage section of the graphical image data, said portion including only data corresponding to the graphic image of interest.

Independent claim 9 recites decompressing a portion of the file, where the portion includes only data for the requested graphic image based on a selected geographical region.

Applicants submit that the combination of references, as presented by the Examiner, does not establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness under 35 U.S.C. § 103 (a), three basic criteria must be met. Referring to MPEP § 2143,

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both

be found in the prior art, not applicant's disclosure." (emphasis added).

The Examiner admits that Johns is materially deficient as it is "silent about where selective decompression of image data is based on selected coverage section of the graphical image data." However, the Examiner uses the teachings of Hashimoto to cure these deficiencies of Johns. In particular, the Examiner is of the opinion that Hashimoto discloses selective decompression of image data, where a decompression unit 1420 decompresses only a portion of compressed environment map 1430 based on a view window 954 (col. 15, lines 28-41). (Office Action at p. 3.)

Hashimoto is directed towards an environment map creation using texture projections with polygonal curved surfaces. More specifically, Hashimoto teaches a map creation system which creates an environment map from one or more images representing an environment. To gain advantages in processing times, Hashimoto uses a compression unit and a decompression unit. As disclosed at col. 5, lines 10-30, the compression unit divides the environment map into a plurality of tiles, where each tile is compressed by the tile compressor independently of the other tiles. The decompression unit is then used to decompress a subset of relevant tiles of the environment map. The subset of relevant tiles includes some tiles which do not have data needed to texture map the view window. This is contrary to the claimed invention and would certainly comprise performance. The invention does not comprise performance in this manner, though. In the invention, only the portions of the files containing requested data are decompressed before the requested data are sent to the frame buffer for display.

Col. 15 confirms that the decompressed tiles may include irrelevant data. Specifically, col. 15 discloses that decompression unit 1420 decompresses only a portion of compressed environment map 1430 based on view window 954. But, Hashimoto further discloses in col. 15 that the determination of exactly which compressed tiles contain relevant data may be more processing intensive than decompressing a few irrelevant tiles, i.e., tiles that do not contain relevant data. Thus, selection and decompression of a subset of the compressed tiles

which may contain irrelevant tiles, is provided by Hashimoto. Also, the subset of compressed tiles for decompression does not include all compressed tiles having relevant data.

With this understanding, Applicants first submit that Hashimoto will include irrelevant data. This is contrary to the present invention which includes only the relevant data required for the geographical area. That is, contrary to Hashimoto, the invention decompresses only the portion of the file that includes data for an area of interest. As noted at page 8 of the specification,

Decompression of data for an area of interest can typically be performed more quickly than decompression of an entire tile, and much more quickly than loading a file containing the data from a disk.

Second, Hashimoto also clearly discloses that the subset of tiles will not include all compressed tiles having relevant data. This certainly is a shortcoming of Hashimoto, which is overcome by the present invention. Additionally, Hashimoto clearly indicates that the entire tile will be decompressed, also contrary to the invention.

As to independent claim 14, Applicants further that the combination of references do not suggest or teach, for example, the compressed data includes overhead data that defines the geographical image data and includes latitude and longitude vertices. In other words, the approximate latitude and longitude represented by a pixel array comprising the tile can be determined for purposes of defining the area of interest. Although the Examiner is of the opinion that this feature is shown at col. 14, lines 15-40, Applicants submit that this passage is directed to vertices of the specific tiles, not the latitude and longitude vertices of the overhead data which is representative of the geographical image data. This is different than that disclosed in Hashimoto.

In any event, Applicants submit that there is no reasonable expectation of success for the combination. The Examiner has done nothing to support the combination. That is, to show no motivation, in accordance with MPEP § 2143.02,

The ...suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.). (emphasis added.)

In the present rejection, the combination of Johns with Hashimoto requires a substantial reconstruction and redesign of the elements shown in Johns as well as a change in the basic principle under which the Johns construction was designed to operate. More specifically, Johns discloses storing each of the chunks stored as a discrete block of memory distributed randomly in one or more memory devices. *See* col. 7, lines 5-7. Since the chunks are stored randomly, the decompressing will also be performed by choosing the random chunks. Additionally, to decompress randomly, for example, Johns discloses at column 8, lines 26-38:

The display controller also manages the process of refreshing the display screen from the primary display image managed by the VFB controller and possibly other images. In particular, a compositor 330 retrieves the chunks that make up the display image from memory (e.g., the local video memory 310) and temporarily holds them in a compositing buffer. For compressed chunks, the compositor instructs a decompressor 332 to decompress the chunk and place it in the compositing buffer. The compositor uses a double buffering scheme to scan one set of output pixels to the display 334 from one buffer, while constructing another set of output pixels in another.

Moreover, Johns is directed towards a virtual frame buffer controller in a computer display system for managing a display image in compressed and uncompressed blocks. Johns discloses the VFB controller indicates to the host when free memory is running low. The host, in turn, interacts with the display controller to re-compress least recently used chunks. *See* col. 8, lines 11-14. To compress the information which is not used frequently, the VFB controller indicates to the host when free memory is running low. The host, in turn, interacts

with the display controller to re-compress least recently used chunks. The foregoing illustrates the intended purpose of Johns (e.g., to randomly decompress chunks of data).

On the other hand, Hashimoto is directed towards selective image compression as discussed above. However, such a combination would require a complete redesign of Johns and would be directed away from Johns intended purpose. That is, in Johns the chunks are stored randomly, and the decompressing will also be performed by choosing the random chunks. Therefore, the combination is improper as the complete internal operational logic of Johns would have to be completely modified to perform the teachings of Hashimoto. There is simply no teaching in Hashimoto for this substantial reconstruction and redesign of the elements shown in Johns as well as a change in the basic principle under which the Johns construction was designed to operate.

For at least the foregoing reasons Applicants respectfully the rejection under 35 U.S.C. § 103 be withdrawn.

***Claim 21***

Claim 21 is added for the Examiner's consideration. Claim 21 recites that, in part, means for selectively decompressing a portion of said compressed graphic image data in a tile as stored in the memory based on a selected coverage section of the graphical image data. However, the applied references do not show this feature. In fact, col. 15 of Hashimoto discloses that entire tiles are decompressed and that even subsets of tiles which include some tiles which do not have data needed to texture map the view window are also decompressed. This is contrary to the claimed invention and would certainly comprise performance.

### CONCLUSION

In view of the foregoing remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 23-1951.

Respectfully submitted,



Andrew M. Calderon  
Registration No. 38,093

McGuireWoods, LLP  
Suite 1800  
1750 Tysons Blvd.  
McLean, VA 22102  
(703) 712-5426